C U R R I C U L U M V I T A E

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EDUCATION

Ph.D.	University of Houston	2002	Materials Engineering
M.S.	University of Houston	1999	Mechanical Engineering
B.S.	University of Belgrade	1996	Mechanical Engineering

RESEARCH INTERESTS

Applied Research
Hydrogen energy technologies, solid oxide fuel cells, hydrogen fuel generation
Applied superconductivity
Color science for dental and medical applications
Synthesis and processing of advanced materials

Fundamental Research
Stress-induced diffusion and ambipolar diffusion phenomena, defect chemistry of oxides, defect clustering and order-disorder transitions, electromechanical properties of superconductors, quench propagation in superconducting wire, electrical and mechanical properties of advanced oxides, spark plasma synthesis.

PROFESSIONAL EXPERIENCE

2008 – Present	Research Assistant Professor, University of Houston, Dept. of Mechanical Engineering
2003 - Present	Research Scientist, University of Houston, Texas Center for Superconductivity
2006 – 2007	Adjunct Assistant Professor, University of Houston, Department of Engineering Technology
2005 – Present	Visiting Research Fellow, Houston Biomaterials Research Center, University of Texas
2002 – 2003	Postdoctoral Fellow, University of Houston, Texas Center for Superconductivity
1997 - 2002	Research Assistant, University of Houston, Department of Mechanical Engineering
1995	Summer Internship, IMR – Industrija Motora Rakovica, Diesel Engine Industry, Yugoslavia
1994	Summer Internship, DMB Beograd, IC Engine Industry, Belgrade, Yugoslavia

EXPERIMENTAL AND OTHER EXPERIENCE / SKILLS

Materials Characterization
Wide range of characterization techniques at cryogenic, room and elevated temperatures and in controlled atmosphere, stress-induced diffusion, defect chemistry of advanced oxides, mechanical characterization, electromechanical properties of superconductors, quench propagation in superconducting wire, ultrasonics, characterization of electrical properties.

Imaging, Structural, Elemental and Chemical Analysis
Secondary ion mass spectroscopy, X-ray photoelectron spectroscopy, thermogravimetry, dilatometry, electron energy loss spectroscopy, scanning/transmission electron microscopy, energy and wave dispersive spectroscopy, X-ray diffraction.

Synthesis and Processing
Spark plasma sintering, field activated homogenization of elemental powders, hot isostatic pressing, conventional and vacuum sintering, high energy ball milling/mechanical alloying.

Computer related skills

Matlab, Femlab, ProEngineer, AutoCad, ABAQUS, Fortran F90 and F77, GPIB interfacing and data acquisition, Unix/Linux platforms.

SELECTED PUBLICATIONS

G. Majkic, M. Allesandrini and K. Salama, "Effect of wire design parameters on stability of MgB_2 superconducting coils", Invited Paper, Accepted, to appear in special issue of Superconducting Science and Technology from International Conference on Superconductivity and Magnetism (ICSM 2008),25-29 August 2008, Side-Antalya, Turkey.

R. Mensah, G. Majkic, V.Selvamanickam, Y.Y.Xie and K. Salama "Effect of Mn Addition on In-Field Behavior of IBAD/MOCVD Gd-YBCO Second Generation HTS Tapes", Accepted, to appear in Summer 2009 special issue of IEEE Transactions on Applied Superconductivity; Special Issue from the Applied Superconductivity Conference, Chicago, Illinois USA, August 17 - 22, 2008.

G. Majkic, R. Mensah, V.Selvamanickam, Y.Y.Xie and K. Salama "Electromechanical Behavior of IBAD/MOCVD YBCO Coated Conductors Subjected to Torsion and Tension Loading", Accepted, to appear in Summer 2009 special issue of IEEE Transactions on Applied Superconductivity; Special Issue from the Applied Superconductivity Conference, Chicago, Illinois USA, August 17 - 22, 2008.

M. Alessandrini, G., Majkic and K. Salama, "Modeling of Longitudinal and Transverse Quench Propagation in Stacks of Superconducting MgB2 Wire", Accepted, to appear in Summer 2009 special issue of IEEE Transactions on Applied Superconductivity; Special Issue from the Applied Superconductivity Conference, Chicago, Illinois USA, August 17 - 22, 2008.

G. Majkic, S. Karajagi, U. Balachandran and K. Salama "The Effect of Hydrogen Partial Pressure on Uniaxial Creep of 3Y-TZP/50% vol. Pd Cermet Membranes", Materials Science and Engineering B, Vol. 150 (3), p. 145-150, 2008.

M. Alessandrini, P. Putman, G. Majkic, H. Fang, F. R. Chang-Diaz, G. Grasso and K. Salama, "Winding and Testing of Large Bore Solenoids, and Study of Quench Propagation in Short Coils Made with Multifilament MgB2 Tape", to appear in IEEE Transactions on Applied Superconductivity, Vol. 18, n. 2, 2008.

G. Majkic, N. Chennoufi, Y.C. Chen and K. Salama, "Synthesis of NiTi by Low Electro-Thermal Loss Spark Plasma Sintering", Metallurgical and Materials Transactions A, Vol. 38A, p. 2523, 2007.

K. Salama, G. Majkic and B.U. Balachandran, "Review: Stress-Induced Diffusion and Cation Defect Chemistry Studies of Perovskites", Invited Paper, Defect and Diffusion in Ceramics – Annual Retrospective 2005, Defect and Diffusion Forum, Vol. 242-244, p. 43-64, 2005.

R.D. Paravina, G. Majkic, F.H. Imai and J.M. Powers, "Optimization of Tooth Color and Shade Guide Design", Journal of Prosthodontics, Vol. 16, P. 269, 2007.

G. Majkic, A.J. Jacobson and K. Salama, "Stress-Induced Diffusion and Defect Chemistry of $La_{0.2}Sr_{0.8}Fe_{0.8}Cr_{0.2}O_{3-\delta}$; 3. – Defect Chemistry Based Modeling", Solid State Ionics, Vol. 167, p. 255, 2004.

G. Majkic, M. Mironova, L.T. Wheeler and K. Salama, "Stress-Induced Diffusion and Defect Chemistry of $La_{0.2}Sr_{0.8}Fe_{0.8}Cr_{0.2}O_{3-\delta}$; 2. – Structural, Elemental and Chemical Analysis", Solid State Ionics, Vol. 167, p. 243, 2004.

G. Majkic, L.T. Wheeler and K. Salama, "Stress-Induced Diffusion and Defect Chemistry of $La_{0.2}Sr_{0.8}Fe_{0.8}Cr_{0.2}O_{3-\delta}$; 1. - Creep In Controlled Oxygen Atmosphere", Solid State Ionics, Vol. 164, p. 137, November 2003.